

GUIDE SPECIFICATION FOR MILITARY CONSTRUCTION

NOTE: This section was last modified by C. Diven
in Dec 2003. Added language for Design Build
projects, & revised site superintendents language
and length of training course hrs. Corrected
numbering and typo.

SECTION 01440

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM C 1077 (2002) Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction Criteria for Laboratory Evaluation
- ASTM D 3666 (2002) Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
- ASTM D 3740 (1999c) Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
- ASTM E 329 (2000a) Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 SUBMITTALS

NOTE: Submittals must be limited to those necessary for adequate quality control. The importance of an item in the project should be one of the primary factors in determining if a submittal for the item should be required.

Indicate submittal classification in the blank space following the name of the item requiring the submittal by using "G" when the submittal requires Government approval. Submittals not classified as "G" will show on the submittal register as "Information Only". For submittals requiring Government approval, a code of up to three characters should be used following the "G" designation to indicate the approving authority; codes of "RE" for Resident Engineer approval, "ED" for Engineering approval, and "AE" for Architect-Engineer approval are recommended.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Quality Control Plan; G, [_____].

The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed and before the pre-construction conference, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause entitled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

1.2 MEASUREMENT AND PAYMENT

Separate measurement and payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 - PRODUCTS (NOT APPLCABLE)

PART 3 - EXECUTION

3.1 GENERAL

**NOTE: Include bracketed information for
Design-Build projects.**

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause entitled "INSPECTION OF CONSTRUCTION." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all [design and] construction operations, both on-site and off-site, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for construction and construction-related activities at the site.

3.2 QUALITY CONTROL PLAN

3.2.1 General

**NOTE: Use the text in brackets for Design-Build
projects in the following paragraphs.**

The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause entitled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. [Design and]Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC plan shall include, as a minimum, the following to cover all [design and]construction operations, both on-site and off-site, including work by [designers or record, consultants, architect/engineers

(A/E)]subcontractors, fabricators, suppliers and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC system manager who shall report to the project manager or someone higher in the Contractor's organization. Project manager in this context shall mean the individual with responsibility for the overall management of the project including quality and production.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities and responsibilities. Copies of these letters will also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents[, subcontractors, designers of record, consultants, and architect engineers (AE)]. These procedures shall be in accordance with Section 01300 SUBMITTAL DESCRIPTIONS.

e. Control, verification and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking [design and] construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks and has separate control requirements. It could be identified by different trades or disciplines, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there is frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

**NOTE: Use the following paragraph only for
Design-Build projects.**

3.2.3 Additional Requirements for Design Quality Control (DQC) Plan

The following additional requirements apply to the Design Quality Control (DQC) Plan:

a. The Contractor's QCP Plan shall provide and maintain a Design Quality Control (DQC) Plan as an effective quality control program which will assure that all services required by this design-build contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, all documents shall be technically reviewed by competent, independent reviewers identified in the DQC Plan. The same element that produced the product shall not perform the independent technical review. The Contractor shall correct errors and deficiencies in the design documents prior to submitting them to the Government.

b. The Contractor shall include the design schedule in the master project schedule, showing the sequence of events involved in carrying out the project design tasks within the specific contract period. This should be at a detailed level of scheduling sufficient to identify all major design tasks, including those that control the flow of work. The schedule shall include review and correction periods associated with each item. This should be a forward-planning as well as a project-monitoring tool. The schedule reflects calendar days and not dates for each activity. If the schedule is changed, the Contractor shall submit a revised schedule reflecting the change within 7 calendar days. The Contractor shall include in the DQC Plan the discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists shall be submitted at each design phase as part of the project documentation. Example checklists can be found in [ER 1110-1-12](#).

c. The DQC Plan shall be implemented by a Design Quality Control Manager who has the responsibility of being cognizant of and assuring that all documents on the project have been coordinated. This individual shall be a person who has verifiable engineering or architectural design experience and is a registered professional engineer or architect. The Contractor shall notify the Contracting Officer, in writing, of the name of the individual, and the name of an alternate person assigned to the position.

d. The Contracting Officer will notify the Contractor in writing of the acceptance of the DQC Plan. After acceptance, any changes proposed by the Contractor are subject to the acceptance of the Contracting Officer.

3.2.4 Acceptance of Plan

NOTE: Use the text in brackets for Design-Build projects.

Acceptance of the Contractor's plan is required prior to the start of [design and] construction. Acceptance is conditional and will be predicated on satisfactory performance during the [design and] construction. The Government reserves the right to require the Contractor to make changes in his CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.5 Notification of Changes

After acceptance of the QC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

NOTE: Selection of construction or design-build construction text required.

After the [Predesign][Preconstruction] Conference, before start of [design or] construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, [design activities,] control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

NOTE: Selection of construction or design-build construction text required.

3.4.1 Personnel Requirements

The requirements for the CQC organization area a CQC system manager, [a Design Quality Manager] and sufficient number of additional qualified personnel to ensure safety and contract compliance. The Safety and Health Manager shall receive direction and authority from the CQC System Manager and shall serve as a member of the CQC staff. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC Staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of letters, material submittals, shop drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

3.4.2 CQC System Manager

NOTE: For large, complex jobs: Use the first option, and the CQC Manager shall NOT be assigned other duties. The 2nd option may be used for most military and civil works jobs and the CQC may serve as the superintendent in most cases.

The Contractor shall identify an individual within his organization at the site of the work who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be [a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of [5][_] years construction experience similar to this contract.] [a construction person with a minimum of [10][_] years in related work.] This CQC System Manager shall be on the site at all times during construction and will be employed by the prime Contractor. The CQC Manager shall be [assigned no other duties] [assigned as System Manager but may have duties as project superintendent in addition to quality control]. Period of absence may not exceed two weeks at any one time, and not more than 45 workdays during a calendar year. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the system manager's absence. The requirements for the alternate will be the same as for the designated CQC manager.

3.4.3 CQC Personnel

NOTE: Insert desired requirements based on the project specific needs and the complexity and/or size of the project.

In additon to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC system Manager for the following areas: [electrical,] [mechanical,] [civil,] [structural,] [environmental,] [architectural,] [materials technician,] [submittals clerk,] [occupied family housing coordinator]. These individuals [shall be directly employed by the prime Contractor and may not be employed by a supplier or sub-contractor on this project] [may be the employees of the prime or subcontractor]; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals [shall have no other duties other than quality control] [may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan]. Physical presence shall begin when each discipline of work begins on site. In addition, these individuals shall be a part of the submittal review process and shall sign the applicable submittal prior to Submission to the Government.

NOTE: Use item j when the contract specifications contain Section 15990A TESTING, ADJUSTING, AND BALANCING OF HVAC SYSTEMS. Use item k for Design-Build projects.

Experience Matrix

Area	Qualifications
a. Civil	Graduate Civil Engineer with 2 years experience in the type of work being performed on this project or technician with 5 yrs related experience
b. Mechanical	Graduate Mechanical Engineer with 2 yrs experience or person with 5 yrs related experience
c. Electrical	Graduate Electrical Engineer with 2 yrs related experience or person with 5 yrs related experience
d. Structural	Graduate Structural Engineer with 2 yrs experience or person with 5 yrs related experience

Experience Matrix

Area	Qualifications
e. Architectural	Graduate Architect with 2 yrs experience or person with 5 yrs related experience
f. Environmental experience	Graduate Environmental Engineer with 3 yrs
g. Submittals	Submittal Clerk with 1 yr experience
h. Occupied family housing	Person, customer relations type, coordinator experience
i. Concrete, Pavements and Soils	Materials Technician with 2 yrs experience for the appropriate area
[j. Testing, Adjusting and Balancing (TAB) Personnel	Specialist must be a member of AABC or an experienced technician of the firm certified by the NEBB.]
[k. Design Quality Control Manager	Registered Architect or Professional Engineer]

3.4.3.1 Proper CQC Staffing

The minimum requirements for the CQC staff will not necessarily assure an adequate staff to meet the CQC requirements at all times during construction. The actual strength of the CQC staff may vary during any specific work period to cover the needs of the work period. When necessary for a proper CQC organization, the Contractor will add additional staff at no cost to the Government. This listing of minimum staff in no way relieves the Contractor of meeting the basic requirements of quality construction in accordance with contract requirements. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.3.2 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.4.3.3 Training

NOTE: Edit brackets for construction or design-build projects.

In addition to the above experience and education requirements the CQC System Manager or the principal member of the CQC staff shall attend a 16 hour training course on "Construction Quality Management." This course will be periodically offered by the Corps of Engineers and times, dates and location will be provided at the [Pre-Design][Pre-construction] Conference.

3.5 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, and will be keyed to the proposed construction sequence. The controls shall include at least three phases of control to be conducted by the CQC system manager for all definable features of work, as follows:

3.5.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by the Government personnel until final acceptance of the work.
- b. A review of the contract plans.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. A check to assure that provisions have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawing or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for constructing the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that phase of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. A discussion of the initial control phase.

k. The Government shall be notified at least [24][__] hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.5.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with sample panels is appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC system manager and attached to the daily QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases. The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.5.3 Follow-up Phase

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of

additional features of work which may be affected by the deficient work. The Contractor shall not build upon or conceal non-conforming work.

3.5.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases may be conducted on the same definable features of work as determined by the Government if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff; in the on-site production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.6 TESTS

3.6.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. Laboratory must be currently listed by the Corps' Material Testing Center (MTC) as approved to perform intended tests prior to performing the work. The Contractor shall pay for initial inspection of selected laboratory if laboratory is not currently approved. Cost of inspection is currently \$6,500 per laboratory for each site visit. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, will be recorded on the Quality Control report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test will be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. The test reports shall be signed by a registered professional engineer or a representative of the testing laboratory who is specifically authorized to certify test reports. The signature shall be an original, not a rubber stamp. The cover sheet for each test report shall be conspicuously stamped in large, red letters, "CONFORMS" OR "DOES NOT CONFORM" to the specification requirements, as applicable. An information copy of tests performed by an off-site or commercial test facility will be provided directly

to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.6.2 Testing Laboratories

3.6.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt and steel shall meet criteria detailed in [ASTM C 1077](#), [ASTM D 3666](#), [ASTM D 3740](#) and [ASTM E 329](#).

3.6.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$6,500.00 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.6.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.6.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials will be borne by the Contractor. Unless otherwise directed by the Contracting Officer, samples of materials for test verification and acceptance testing by the Government shall be delivered to the Materials Testing Center, f.o.b., at the following address or to the destination(s) designated by the Contracting Officer:

U. S. Army Waterways Experiment Station
Materials Testing Center
3909 Halls Ferry Road
Vicksburg, MS, 39180-6199

Coordination for each specific test, exact delivery location and dates will be made through the Area Office.

3.7 COMPLETION INSPECTION

3.7.1 Punch-Out Inspection

At the completion of all work or any increment thereof established by a completion time stated in the Special Contract Requirements entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC system manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved plans and specifications. Such a list of

deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC system manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Government. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates. Once this is accomplished, the Contractor shall notify the government that the facility is ready for the Government Pre-Final Inspection.

3.7.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government pre-final punch list may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so a final inspection with the customer can be scheduled. Any items noted on the pre-final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.7.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base Civil Engineering/Post Directorate of Public Works user groups, and major commands may be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the pre-final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause entitled "Inspection of Construction".

3.8 DOCUMENTATION

The Contractor shall maintain current records of quality control operations, activities, and tests performed, including the work of subcontractors and suppliers. These records shall be on an acceptable form and shall include factual evidence that required quality control activities and/or tests have been performed, including but not limited to the following:

- a. Contractor/subcontractor and their area of responsibility.

- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- e. Quantity of material received at the site with statement as to its acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Off-site surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.
- k. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within the first workday following the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC system manager. The report from the CQC system manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.9 SAMPLE FORMS

Sample forms are enclosed at the end of this section.

3.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor at the site of the work, shall

be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.11 RESIDENT MANAGEMENT SYSTEM (RMS)

NOTE: For Civil jobs, contact the Tulsa Area Office to determine if RMS is suitable. RMS will be used for all military jobs unless waived by the Area Office.

The Resident Management System (RMS) shall be implemented by the Contractor in accordance with Section 01312 QUALITY CONTROL SYSTEMS (QCS).

DAILY CONSTRUCTION QUALITY CONTROL REPORT

Date: Report No.

Contract No.:

Description and Location of Work:

WEATHER: (Clear) (P. Cloudy) (Cloudy); Temperature: Min; Max;
Rainfall Inches

Contractor/Subcontractors and Area of Responsibility with Labor Count
for Each:

a.

b.

c.

d.

Equipment Data: (Indicate items of construction equipment, other than
hand tools, at the jobsite, and whether or not used.)

1. Work Performed Today: (Indicate location and description of work
performed. Refer to work performed by prime and/or subcontractors by
letter in table above.)

2. Results of Surveillance: (Include satisfactory work completed, or
deficiencies with action to be taken.)

a. Preparatory Inspection:

b. Initial Inspection:

c. Followup Inspections:

3. Test Required by Plans and/or Specifications Performed and Results of Tests:

4. Verbal Instructions Received: (List any instructions given by Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

5. Remarks: (Cover any conflicts in plans, specifications, or instructions or any delay to the job attributable to weather conditions.)

6. Results of Safety Inspection: (Include safety violations and corrective actions taken.)

Contractor's Inspector

CONTRACTOR'S VERIFICATION: The above report is complete and correct and all material and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications except as noted above.

Contractor's Approved Authorized Representative

PREPARATORY INSPECTION CHECKLIST

Contract No.:

Date:

Title:

Specs Section:

MAJOR DEFINABLE SEGMENT OF WORK:

A. PERSONNEL PRESENT:

NAME	POSITION	COMPANY
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1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

(List additional personnel on reverse side.)

B. TRANSMITTALS INVOLVED:

CONTRACTOR OR NUMBER & ITEM	CODE
GOVERNMENT APPROVAL	

1.

2.

3.

4.

5.

6.

B-I. Have all items involved been approved? Yes No

B-II. What items have not been approved?

ITEM	STATUS
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1.

2.

3.

4.

5.

C. ARE ALL MATERIALS ON HAND? Yes No

C-I. Are all materials on hand in accordance with approvals?

Yes No

C-II. Items not on hand or not in accordance with transmittals:

1.

2.

3.

4.

D. TESTS REQUIRED IN ACCORDANCE WITH CONTRACT REQUIREMENTS:

TEST

PARAGRAPH

1.

2.

3.

E. ACCIDENT PREVENTION PREPLANNING - HAZARD CONTROL MEASURES:

E-I. Applicable Outlines (Attach Completed Copies):

1.

2.

3.

4.

5.

E-II. Operational Equipment Checklists:

ATTACHED FOR:

1.

2.

3.

ON FILE FOR:

1.

2.

3.

Quality Control - Prime Contractor

Quality Control - Work Involved

INITIAL INSPECTION CHECKLIST

Contract No.:

Date:

Description and Location of Work Inspected:

Specs Section:

REFERENCE CONTRACT DRAWINGS:

A. PERSONNEL PRESENT:

	NAME	POSITION	COMPANY
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

B. MATERIALS BEING USED ARE IN STRICT COMPLIANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS.

Yes

No IF NOT, EXPLAIN:

C. PROCEDURES AND/OR WORK METHODS WITNESSED ARE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS.

Yes

No IF NOT, EXPLAIN:

D. WORKMANSHIP IS ACCEPTABLE.

Yes

No STATE AREAS WHERE IMPROVMENT
IS NEEDED:

E. SAFETY VIOLATIONS AND CORRECTION ACTION TAKEN:

Quality Control Representative

OPERATION AND MAINTENANCE FIELD INSTRUCTIONS

CONTRACT
NO.

DESCRIPTION

LOCATION

DATE

Operation and maintenance instructions were conducted for (Type of
Equipment)
required by section , paragraph ,
on . (Date)

The following personnel were present: (Signatures of Attendees)

Instructions were given by (Contractor's Representative)
The personnel identified herein by their signatures certify that they
have been instructed in the operation and maintenance of the
above-mentioned equipment.

PIPING SYSTEM TEST REPORT

STRUCTURE OR BUILDING

CONTRACT
NO.

DESCRIPTION OF SYSTEM OR PART OF SYSTEM TESTED:

DESCRIPTION OF TEST:

NAME AND TITLE OF PERSON IN CHARGE OF PERFORMING TESTS FOR CONTRACTOR:

NAME

TITLE

SIGNATURE

I HEREBY CERTIFY THAT THE ABOVE-DESCRIBED SYSTEM HAS BEEN TESTED AS
INDICATED ABOVE AND FOUND TO BE ENTIRELY SATISFACTORY AS REQUIRED IN THE
CONTRACT SPECIFICATIONS.

(SIGNATURE OF INSPECTOR)

(DATE)

REMARKS:

CONTRACTOR'S INSPECTOR ROOFING CHECKLIST AND TEST REPORT

DATE:

WEATHER:

CONTRACT NO.:

All data required to be taken from labels on container.

1. Type of bitumen used with underlayment or insulation and area covered
2. Type of bitumen used with base sheet and area covered
3. Type of bitumen used for mopping 4 plies
4. Type of bitumen used for flood coat or surfacing gravel
5. Type and thickness of insulation or underlayment used
6. Type of base sheet used
7. Type of felt used
8. Source of surface gravel and condition, wet, dry, clean
9. Roofing sample(s), location and weight
10. Bitumen sample furnished to the Government, quantity and type
11. Bitumen temperature checks, type of asphalt, time taken, maximum temperature specified
12. Are brooms being used? Yes No.
13. Bituminous cement used, type and usage
14. Area covered

Contractor's Approved Authorized
Representative

Quality Control Inspector

-- End of Section --